

RESPONSE OF SELF-POLLINATED CORN LINES ON NITROGEN FERTILIZER

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Studies were carried out in 2012-2015 at the All-Russian Research Scientific Institute of corn. The effect of nitrogen fertilizer (N60) on plant growth, yield of green mass and grain of 13 self-pollinated corn lines of different ripeness groups was studied. Differences between the studied samples by changes in plant height and yield of green mass and grain were revealed. The maximum increase in plant height was observed in the line of HMv 2541 MV (by 7 cm), as well as in the lines of RP 310 MV and GK 226 M (by 6 cm). The greatest increase in green mass was caused by nitrogen fertilizer in the lines of RP 110 SD (by 23%) and GK 226 M (by 18.1%), and the maximum increase in grain yield was caused by lines of the RK 217 zM (by 14.9%), RS 201 C (14.4%) and GK 226 M (12.4%).

Line RV 197 MV showed a weak reaction to nitrogen fertilizer, its height of plants (by 3 cm) and the yield of green mass increased slightly (by 6.5%), while the grain yield did not increase.

Keywords: corn, self-pollinated lines, nitrogen fertilizer, productivity, responsiveness.

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